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ORIGINAL CONTRIBUTIONS.

On the Cause of Intermittent Fever. By HENRY M. LYMAN, M. D., Pathologist to Cook County Hospital.

The January number of the *American Journal of the Medical Sciences* contains an article from the pen of Prof. J. H. Salisbury, of Cleveland, announcing the discovery of the long-sought cause of malarial diseases. The Professor has already distinguished himself as a skilful microscopist and physiologist. The readers of the *American Medical Times* will readily recall to mind a paper on a form of measles originating from a species of fungus produced on damp straw, in which communication Dr. S. suggested a vegetable origin for the camp measles, which was at that time prevailing so extensively in the U. S. Army. Continuing his observations with the microscope, and extending their field, he has at length satisfied himself that the old hypothesis of a cryptogamic origin of the miasmatic poison is correct. The announcement of this discovery constitutes one of the most interesting papers we have ever read,—one which deserves the careful study of every physician throughout the world. If the statements of Prof. Salisbury are confirmed by equally skilled observers in other regions and other climates where miasmatic fevers prevail, his name will rank among the first of the great names of observers who have advanced the cause of science.

It is impossible to refrain from admiration of the patience and perseverance displayed by Dr. S. in the conduct of his researches. For three years, his time was devoted to microscopical investigation of the exhalations of the soil in miasmatic localities. His method was ingenious. Examining the expectoration and urine of patients suffering from miasmatic fever, he discovered in these excretions a variety of microscopical cells of vegetable origin. Only one form, however, was invariably present—a minute oblong cell, "consisting of a distinct nucleus, surrounded by a smooth cell-wall, with a highly clear, apparently empty, space between the outer cell-wall and nucleus." These little bodies were also recognized in the night air of miasmatic regions. To discover their source was the problem which Dr. S. proposed to himself.

Repeating the experiment of the Italian savans, he suspended plates of glass in the vicinity of swampy soil; but, unlike his predecessors in the inquiry, who had been content with the detection of an organic residuum in the dew that condensed upon the glass, he subjected the drops of water thus obtained to microscopical analysis, and finally discovered that the cells, which had been remarked in the expectoration of fever patients, were the spores of a cryptogamic plant which appeared upon freshly turned earth like "a whitish mould, or, more closely, the incrustation of some salt." By exposing plates of glass, dipped in a solution of chloride of calcium, he ascertained:

1. "That cryptogamic spores and other minute bodies are mainly elevated above the surface during the night. That they rise and are suspended in the cold, damp exhalation from the soil, after the sun has set, and that they fall again to the earth soon after the sun rises.

2. "That in the latitude of Ohio, these bodies seldom rise above from thirty-five to sixty feet above the low levels. That in the northern and central portions of the State, they rise from thirty-five to forty-five feet, while in the southern, from forty to sixty feet.

3. "That at Nashville and Memphis they rise from sixty to one hundred feet and more above the surface.

4. "That above the summit plane of the cool night exhalations, these bodies do not rise, and intermittents do not extend.

5. "That the day air of malarial districts is quite free from these palmelloid spores, and from causes that produce intermittents."

Having satisfied himself that the "palmelloid spores" were the cause of malarial fever, Dr. S. proceeded to examine the night air of every locality where ague prevailed, and was successful in discovering the microscopic agent in every instance. The often-observed phenomena of the occurrence of intermittent fever in the track of winds blowing over marshy regions, he at once stripped of mystery by displaying under his object-glass the poisonous spores whose flight he had intercepted. Fevers which broke out in localities where the disease had never before been experienced were thus traced to adjacent excavations of the soil, and were arrested through the destruction of their cause by covering the cryptogamic crop with straw or with caustic lime. The Professor at length put his theory to the test of the following experiment:

"I filled six tin boxes with the surface earth from a decidedly malarious drying prairie bog, which was covered completely with the palmellæ previously described. Cakes of the surface soil were cut out, the size and depth of the boxes, and carefully fitted in without disturbing more than possible the surface vegetation. The covers were then placed on, and the boxes transported to a high, hilly district, some five miles distant from any malarious locality, and where a case of ague had never been known to occur. The locality was over three hundred feet above the stream levels, was dry, sandy and rocky. I here placed the boxes of cryptogams on the sill of an open second-story window, opening into the sleeping apartment of two young men; removed the covers, and gave particular directions, that the boxes should not be disturbed, and the window left open. On suspending a plate of glass over the boxes on the fourth day, during the night, the under surface of the plate on the following morning was found covered with palmelloid spores, and numerous cells of the same kind adhered to a suspended plate in the

room, which was moistened with a concentrated solution of chloride of calcium.

"On the twelfth day, one of the young men had a well-marked paroxysm of ague, and on the fourteenth, the other was taken down with the disease. They both began to feel unnatural and dull about the sixth day. All three stages of the paroxysms were well marked. The type in both cases was tertian, and was readily controlled by the appropriate remedies.

"Four members of the family slept on the lower floor of the house, but none of them were affected."

A few other experiments of the same nature were tried with similar results.

Prof. Salisbury's theory of the cause of intermittent fever, then, may be thus briefly stated:

Certain cryptogamic forms of vegetation are produced upon drying soils, usually where the earth has been recently disturbed by any cause.

These growths produce an almost infinite number of spores, which are dispersed by the damp air of the night, and which by contact with the mucous surfaces of the human body, excite "local fever," which results in either intermittent or remittent fever.

Had the Professor at this point laid down his pen, and written no more, we should have been disposed to put faith in his discovery. But he proceeds still further, and not only makes assertions but draws conclusions which lead us to fear that he has not fully proved his point. In one instance, at least, his data are lacking in accuracy. We refer to his account of the fevers which occurred on College Hill, at Nashville, during the late war. Dr. S. supposes that the fortifications which were thrown up on the hill, in the vicinity of the hospitals, occasioned the production of the severe congestive fevers, which in several instances proved fatal to inmates of the hospitals. Visiting the spot, he found that "the soil on the perpendicular sides of the ditch, which was dug to strengthen the place, was covered completely with cryptogamic vegetation * * * similar to those

(palmellæ) in districts where intermittents are of a congestive type."

Having been ourself on duty in the hospitals on College Hill, during the time of which he speaks, and having barely escaped death from congestive intermittent fever contracted on the spot, we can positively assure the Professor, that the disease could not have been traced to the fortifications in question, for the reason that they were not then in existence. It was the month of September, a considerable time after the occurrence of our worst cases of fever, before the hospitals were removed and the excavations were made which Dr. Salisbury explored. During our occupation of the hill, in the summer of 1862, the only instance in which the soil was disturbed was the excavation of a privy; but, according to the Professor's own theory, the effects of this must have been neutralized by the quicklime which was freely scattered in and around the pit. We discovered, after extended inquiry, that, though the physicians of Nashville would not admit the existence of malaria within the city or in its vicinity, there was in the minds of the unprofessional public a firm conviction that College Hill was a peculiarly miasmatic locality, and that it had always been unhealthy from the earliest settlement of the country.

A slight inaccuracy of this sort, however, is by no means fatal to the argument, for Dr. S. distinctly asserts that "occasionally the soil on the hill, where it had not been disturbed, was covered slightly with this same vegetation." Our incredulity has its origin in other sources. We are not prepared to deny that these "palmelloid spores" may be in some way the cause of intermittent fever, but we do not think that such has yet been proved to be the fact. After examining the urine of several hundred cases of intermittent and remittent fever, and finding cryptogamic spores always present in the urine as well as in the expectoration, Prof. S. considers it safe to say that the results of these examinations "establish the fact that ague plants, the same as grown upon the ague soil, are constantly developing in the system of the intermittent fever patient; and that the urinary organs constitute one important outlet for the elimination of this fever vegetation." From this it logically

follows that, to effect a cure of the disease, "this exciting cause must be carried out of the organism through those excretory channels which nature has provided for the elimination of effete and abnormal products. * * * The sweating stage of the paroxysm of ague is essentially a curative one." The Professor believes then, that the cryptogamic spores find their way into the circulation, where they grow and multiply, poisoning the blood of the patient, and keeping up a series of abnormal manifestations, until they are finally expelled from the system. If this be true, here is a discovery greater than the discovery of the origin of the vegetation itself. Dr. Lionel S. Beale, one of the highest authorities in matters of this sort, declares that "it is very doubtful if the growth and multiplication of vegetable germs can proceed in the circulating fluids of a living body without causing death in a very short time; for the conditions favorable to their existence and multiplication are incompatible with the life of the germinal matter of the higher tissues. The germination and multiplication of very low vegetable or animal organisms in man and the higher animals, are an indication not only that the death of the tissue has taken place, but that it is passing into a state of decomposition. It is true, that bacteria have been detected in the blood of patients during life, but hitherto, only in cases shortly before death, at a time, when the blood in which they grew and multiplied was no longer fit for nourishing the tissues, and was itself passing into decomposition. Millions of bacteria exist in the softened outer portions of the fibrinous clot of an aneurismal sac, and therefore, in such close proximity to the blood that it is almost certain that, from time to time, some pass into the current of the circulation; but, if this were the case, they would be destroyed, or else so altered, that they would cease to multiply. For, before multiplication could take place, changes must have occurred in the composition of the blood which would render it incapable of supporting the life of its owner."

To infer therefore with Prof. Salisbury, that because "palmelloid spores" are found near both ends of the circulatory channel, they also pervade the system itself, seems to us illogical. These organisms, even if discovered in the pelvis of the kidney,

cannot consequently be supposed to multiply and to act *within the patient*, in the strict sense of that phrase, any more than the Sarcina which sometimes grows in the stomach, or the Pennicellia, Aspergilli, or Spherotheci, which are also found in the urine of intermittent fever patients. These growths, the Professor recognises as consequences of diseased action, producing conditions favorable to cryptogamic life in the urinary excretion. If it be true, as he asserts, that "in these obstinate cases of the disease, the urine passes rapidly to the acetous fermentation even before it is voided," we can see no reason why the bladder should not be occupied by "palmelloid spores," which have been produced *in situ*. That they are the fruits of a crop which has been nurtured in the circulation, we cannot believe until some one makes a satisfactory demonstration of cryptogamic growth in the current of the blood. We have examined this essay in vain for some note of the appearances of the circulating fluids of patients suffering with intermittent fever. If these spores flourish in the blood and are thrown off with the urine, the Professor can inform us whether the perspiration also contains them; and if they are easy of recognition in the secretions and excretions, their detection should not be very difficult in the fluids of the body, provided, they do actually exist and multiply therein. And, if we believe with the Professor, that the phenomena of intermittent fever are the efforts of nature to eliminate from the system the poison which caused the disease,* will not failure to discover these cryptogamic organisms within the system of the patient prove that the poison to be eliminated is, after all, really something of a different nature?

Dr. Salisbury's paper forms a valuable contribution to our knowledge of the forms of cryptogamic vegetation which flourish in miasmatic localities. We hope that similar observations may be undertaken wherever malarial diseases exist. If it can be satisfactorily proved that these peculiar growths are uniformly present in malarious atmosphere, and that without them intermittent fever cannot be excited, we shall be disposed to believe that, if not the cause, they at least

* "When the tissues have become poisoned to a certain extent, there is a reaction on the part of the system, an effort of nature to eliminate the poisonous products already in the body. This effort is the paroxysm, which constitutes what we call the disease."

co-exist with the cause of the disease; and that they afford the most certain means of recognizing the presence of the miasmatic agent; or, if we may be allowed to drop the theory of blood poisoning, and to assign the phenomena of intermittent fever to the same category with the morbid appearances caused by contact with the exhalations of the poison ivy, it will not be difficult to accept the Doctor's theory of the cause as it stands. Whichever horn of the dilemma is accepted, *more light* is all we ask.

Clinical Lectures on Diseases of the Eye. By E. L. HOLMES, M. D., Lecturer on Diseases of the Eye in Rush Medical College, and Surgeon to the Chicago Charitable Eye and Ear Infirmary.

HYPERMETROPIA—PRESBYOPIA.

GENTLEMEN,—The class of cases, which now in order claims our consideration, is interesting as having till within a few years been almost wholly overlooked by the most careful observers. The credit of first analyzing these cases has often been given to Donders; priority is now conceded, I believe, to Stellwag, of Vienna. The class is characterized by such a condition of the refracting media of the eye, that *converging* rays of light may be brought to a focus on the retina, when the apparatus of adjustment is in a state of relaxation. This condition has been called Hypermetropia, and is an important subject in the science of ophthalmology. You can better appreciate this condition of the eye, by recalling the fact, that in the normal eye, the apparatus of accommodation, in a state of full relaxation, causes parallel or very slightly diverging rays to come to a focus *on* the retina; consequently, very distant objects may be seen distinctly. In Hypermetropia, parallel rays come to a focus, when the apparatus of adjustment is in a state of relaxation, *behind* the retina. As converging rays, on passing through a convex lens, come to a focus at a point nearer the lens than the focus of parallel rays, and as the retina is at a point nearer the crystalline than the focus of parallel rays, the eye is in the case supposed adjusted for converging rays. As all objects,

whether near or distant, send off only *divergent* rays, such a patient, with the ciliary muscle in a state of complete relaxation, cannot see distant objects. To do this, with the eye in this condition, he is obliged to place before the cornea a suitable double convex lens, which renders parallel rays *convergent*. We have already seen that the more convex a lens is, the less distant behind it is the point at which parallel rays are brought to a focus. Hence, a patient with Hypermetropia, to see distant objects without the aid of a convex lens, must cause the ciliary muscle to contract, and thus produce a greater degree of convexity of the crystalline lens. Such a patient, in looking at distant objects, is obliged to make a muscular effort on the part of the adjusting apparatus, while the normal eye can recognize distant objects without this effort; or, in other words, when the ciliary muscle is in a state of relaxation. As objects are brought nearer the eye, a still greater effort of the ciliary muscle is required, until finally, in endeavoring to read, for instance, the whole possible muscular power is expended. Such a patient, in using the eyes for near objects, is usually obliged to employ so much muscular effort, that a painful sense of fatigue is soon experienced. In some cases, there is a greater power in the ciliary muscle to increase the convexity of the lens than exists in the normal eye, which aids the patient in overcoming the difficulty in vision.

On the other hand, there are extreme cases in which the patients are unable to see distant objects, not only when the ciliary muscle is in a state of complete relaxation, and consequently the lens least convex, but even when the muscle is in its state of greatest convexity, from the utmost contraction of the ciliary muscle. In such an eye, the images of distant, as well as of near objects, are formed behind the retina. A patient in this condition, can see neither near nor distant objects distinctly. Such patients are in the habit of bringing objects near the eye, since the indistinctness relatively decreases with the increase in the size of the images on the retina, even though indistinct.

For these reasons, ophthalmologists were formerly misled, attributing the indistinctness of vision to an amaurotic condition of the eye.

By placing a minute aperture in a thin plate of metal as near the cornea as possible, diffused light is excluded, and objects are seen somewhat more distinctly. To produce the same effect, patients are in the habit of nearly closing the lids in the act of looking.

In typical cases of Hypermetropia, the cause of the imperfect vision depends upon an abnormal shortness of the antero-posterior diameter of the globe, which may be congenital or acquired. The retina is too near the cornea. By recalling the manner in which parallel and diverging rays of light are affected in passing through lenses of different degrees of convexity, you can readily understand how, in such cases, the images of distant objects, without an effort of the ciliary muscle, must be formed behind the retina.

Hypermetropia depends often on a undue flattening of the cornea and crystalline lens, from absorption of the fluids of the eye. The removal of the lens by accident, or in the operation for cataract, renders an eye hypermetropic. Certain diseases of the choroid, by infiltration and thickening of its substance, is said to produce Hypermetropia, by throwing the retina slightly forward towards the lens.

Hypermetropia has been observed as an apparent symptom of incipient atrophy of the optic nerve. It is often produced in an eye which has been long in disuse, as in certain cases of strabismus. From want of exercise, the ciliary muscle becomes weakened and unable to increase the convexity of the lens; the latter in turn, from constant traction of the Zonula of Zinn, becomes more and more flattened, till even parallel rays of light are brought to a focus behind the retina. On the other hand, Hypermetropia is very often the cause of strabismus. Although reasons for this last phenomenon have been suggested, a perfectly satisfactory explanation has not yet been found.

Hypermetropic patients are very liable to suffer a peculiar neuralgic pain in and around the eyes, after working even for a a short period upon near and fine objects. Such patients are often unable to pursue any occupation requiring constant use of the eyes. They soon experience a sense of fatigue, which at length becomes pain. Rest will cause this discomfort to sub-

side; only to return, however, on resuming the customary labor. Continued efforts soon produce not only pain but a decided congestion, with a peculiar irritable condition of the eyes, which renders any occupation almost impossible.

The treatment in cases of Hypermetropia consists in the careful observance of such habits of life, especially with children, as will tend to prevent undue exercise of the eyes, and in the use of suitable double convex lenses.

In slight cases, a correct diagnosis can only be made after a careful examination. It is impossible to know without this, whether a patient, in looking at a distance, sees objects with the ciliary muscle in a state of relaxation, as in the normal eye, or whether he sees them by making an effort with the muscle of accommodation. To decide this point, it is necessary usually to paralyze the ciliary muscle by means of atropine. If a drop of a solution of sulphate of atropia, gr. iv. to the ounce, be instilled upon the conjunctiva every fifteen minutes for two or three hours, the muscle will be completely paralyzed, and the lens will assume its least possible degree of convexity. A normal eye thus influenced by atropine, would readily distinguish distant objects. But in the hypermetropic eye, as we have seen, the rays from distant objects are brought to a focus behind the retina; consequently, such objects could not be seen distinctly. By placing before the eye a suitable convex lens, the rays are rendered converging, and on thus passing through the cornea and crystalline lens, are brought to a focus, not behind the retina, but on it. After the effects of the atropine have passed away, if the same lens be placed before the eye, distant objects can be seen without any effort on the part of the apparatus of accommodation. The eye thus provided with a lens, instead of being obliged to use a certain portion of its adjusting power, will, like the normal eye, see at a distance *without* muscular effort, and can reserve its whole power of adjustment for near objects.

Occasionally we meet with patients in whom one eye is myopic, and the other hypermetropic. In the case of the clergyman, whom a few of you recently saw, the myopia of one eye and the Hypermetropia of the other eye were very marked.

To recapitulate: in the normal eye the apparatus of accommodation can adjust the focus for objects at any distance, more than five inches from the cornea; but when the eye is accommodated for very distant objects, the ciliary muscle is in a state of perfect relaxation, and the lens reduced to its least degree of convexity. To this normal condition of the eye has been given the term Emmetropia—vision in due measure.

Of the abnormal conditions of the globe, we have, 1st, Brachymetropia—shortsightedness—in which the rays of light are brought to a focus *in front* of the retina, in consequence of the abnormal distance at which the latter is placed from the lens; 2d, the opposite of the condition just mentioned, in which the retina is too near the lens, in consequence of an abnormal shortening of the diameter of the eye. To this condition has been given the term of Hypermetropia—vision beyond normal measure, "oversightedness." The apparatus of accommodation may, in each of these cases, be perfectly normal. It should be remembered that the faculty of accommodation, properly speaking, is confined to the power of increasing or diminishing the convexity of the lens, which changes cause rays of light from objects at different distances to be brought to a focus at the same instance behind the lens. If the retina is situated either too far from the lens, as in shortsightedness, or too near the lens, as in Hypermetropia, a part of the power of adjustment is expended in moving the focus, in the first case, further from the lens, and in the second, towards the lens.

There are two abnormal changes in the apparatus of accommodation, the form of the eye remaining normal: 1st, Plesiopia—nearsightedness as we have already described, in which the lens can be rendered more convex, but cannot be sufficiently flattened. 2d, The opposite of this—Presbyopia (old)—farsightedness, in which the lens can be flattened sufficiently to see distant objects distinctly, although its convexity cannot be increased sufficiently for seeing near objects. Hence, as the power of accommodation is destroyed as regards near objects, it is necessary, in looking at such objects, for presbyopic patients to increase the refraction of the rays by the use of convex lenses; and in marked cases, it is necessary to employ strong lenses for

very near objects, and lenses of less convexity for objects which are moderately remote.

I am aware that I have attempted to express in a few words what requires much more space than we can now devote to this subject. If you will, however, carefully impress upon your minds a few of the important facts connected with the influence of convex and concave lenses on rays of light, and will also study the principles given in this and the past lectures, you will be able to examine and comprehend the nature of the cases which may fall under your observation.

On the Respiratory Function in Pneumonia: Report of Cases. By Dr. J. P. Ross, Attending Physician to the County Hospital.

The two following cases of Pneumonia are reported, not because there is anything very remarkable in them, but to show the importance of keeping up the respiratory function especially where a large portion of the lungs are involved in the disease; and secondly, the danger which may attend the administration of opium, from its effects in diminishing the respirations.

CASE I. DOUBLE-PNEUMONIA.

R. S. W——d, aged 23, brakeman on a railroad, sent for me, May 1st, 1859. He said, he was taken four days before with a chill, followed by headache, loss of appetite, occasional cough, and a dull pain in the right breast. A general examination revealed the skin moist; pulse, 100, full; tongue but slightly furred; bowels free from the action of a cathartic which had been administered the day before; there was no appetite and but little thirst. The patient was sitting up in bed, making but little complaint. On percussion, there was dullness over two-thirds of the right lung inferiorly, with bronchial respiration. Vocal resonance increased. There was slighter dullness and crepitation over left back inferiorly. The sputum was copious and rust-colored. The respirations were twenty per minute. Prescribed three grains of quinine and one-third of a grain of morphine every fourth hour.

May 2d. Patient very much as yesterday. In addition to the physical signs, dullness was found over lower and anterior portion of left lung, also bronchial respiration. The respirations were 21 per minute and somewhat labored. Urine scanty and high colored. Warm fomentations were ordered to the chest; the powders to be continued.

May 3d, 8 o'clock A. M. Was called in great haste, as patient was reported to be dying. His face was of a bronzed hue; the respirations were labored and catching; pulse could scarcely be felt, small and frequent; lips blue; the body was slightly convulsed; extremities cold, and the patient unconscious. The respiratory murmur was absent, with dullness on percussion over two-thirds of right and left lungs inferiorly; also, coarse crepitation over remaining portion. Ordered to be given immediately one ounce of brandy, hot bottles to the extremities, and hot fomentations to the chest, and wrote for the following:

℞ Ammon Carb.,
Camph. pulv., aa ℥ss.
Quiniæ sulph., gr. x. M. Ft. ch. No. x.

S. One powder to be given as soon as obtained, and to be repeated every third hour. And with the first and every other powder, to give one teaspoonful of the following:

℞ Strychinæ, gr. i.
Acid nitric, dil., ℥i.
Aquæ, ℥ii. M.

At 3 o'clock P. M., symptoms greatly improved; respirations 39 per minute, less labored and regular; pulse, 110, full; intellect clear; anxiety of countenance less; complexion florid.

May 4th. Patient rested well last night; doing well. Continue treatment.

May 5th. Crepitation is fully established over upper and middle portion of both lungs; skin moist; pulse, 91; bowels not moved for three days. Continue treatment, and in addition give three com. cath. pills at bedtime.

May 6th. Bowels moved; appetite returning; ate a piece of beafsteak for breakfast; chlorides in abundance in the urine, which was not tested before to-day. The strychnine mixture

to be discontinued, and the powders to be given every fourth hour.

May 7th. Found patient dressed and sitting up. The powder to be discontinued.

May 8th. The respiratory murmur normal over both lungs with but slight crepitation; patient dismissed, cured.

Remarks.—On my first visit, the inferior lobe of the right lung seemed to have progressed to the stage of hepatization, and the disease was spreading in the left lung, which became extensively involved by the morning of the third day. At this time probably two-thirds of both lungs were entirely disabled for the performance of their function. And in addition, there was congestion of the remaining portion of sound lung from venous blood seeking to be arterialized; and secondly, there was venous blood, narcotizing the brain and thus suspending the respiratory function, which afforded the only means of relief. Now what was the indication of treatment? Evidently to stimulate the respirations. For this purpose, stimulants were selected which would act more especially on the brain and nervous system. The success afforded in re-establishing the respirations and pulse, is revealed in the preceding history. After two doses of the remedies were administered, the respirations were thirty per minute; pulse, 110, full; intellect clear, and complexion florid. Nothing more was done but a continued use of the remedies to keep the patient breathing, and the recovery was most rapid.

How much the opium in the first prescription contributed to the alarming symptoms which occurred on the morning of the third day, I am unable to say; but I believe it had something to do with it; and my subsequent experience has taught me to be cautious in the use of this remedy in many cases of pneumonia. In all such cases, as above, where venous blood mingled in the general circulation, I believe opium to be a dangerous remedy.

CASE II.

Wm. B——, American; aged 60; laborer of light work in a bakery; sent for me, Nov. 20th, 1863. His wife states that he was attacked, three days before, with chills, alternating with

fever; slight cough; bloody sputa; restless, and at times delirious. Had taken a cathartic and several 3 gr. powders of quinine, but continued to grow worse to the present time. On examination, the skin was hot and dry; pulse, 116, full; tongue coated with thin, white fur; slight thirst; no appetite; delirious. Physical exploration revealed dullness, bronchial respiration and broncophony over the larger portion of the right lung. Ordered five grains of Dover powder, with $\frac{1}{10}$th of grain of tartar emetic, every four hours, and warm fomentations over the affected side.

Nov. 21st. Patient worse; very restless and delirious; slept but little since attacked. Ordered $\frac{1}{3}$ gr. morphine and 5 grs. camphor at bedtime, and the same quantity repeated every two hours until sleep is induced.

Nov. 22d. 6 o'clock A. M. Patient in a deplorable state. Countenance and prolabia blue; unconscious; breathing irregular and jerking; pulse hardly perceptible at the wrist; deglutition impossible. No sleep had been induced: five of the powders had been taken. Ordered hot turpentine stupes to chest and abdomen, mustard to the feet and legs, and administered ten grains of quinine and four ounces of whisky per rectum. In twenty minutes patient able to swallow, with some difficulty, an occasional teaspoonful of whisky and water. Wrote for the following: Carb. ammoniæ and pulv. camphor, each 30 grains; quinine, 10 grains,—made into ten powders, one to be given every two hours. With the first, and every other powder, to give one teaspoonful of a solution containing $\frac{1}{16}$th gr. of strychnia.

1 o'clock P. M. Capillary circulation, pulse and respirations much improved. Two powders and one dose of the strychnia had been administered. Ordered an interval of three hours to elapse between the powders, and six hours between the doses of strychnia. Beef-tea and milk-punch every hour alternately.

Nov. 23d. Delirium continues; pulse and respirations much as when last visited. Bronchial respiration and dullness over whole of right lung; continue treatment.

Nov. 24th. General symptoms improved. Crepitation returning over affected side; expectoration more copious.

Nov. 25th. Patient rational; bowels relaxed with pain. Omit the powders, and continue the strychnia mixture with ten drops of tinct. opii with each dose. From this date convalescence progressed steadily and rapidly. On the 28th, medical treatment was discontinued, and the patient dismissed, cured.

Remarks.—The alarming symptoms which presented on the morning of the 22d threatened death, as in the preceding case, by asphyxia. This was revealed by the blueness of the prolabia and skin, and the irregular and jerking respirations; and the indications for treatment were precisely the same in both cases, namely, to stimulate the respirations.

It is stated by eminent authority that pneumonia kills by asthenia or exhaustion and not by apnœa. This is plainly stated in a recently published clinical lecture on pneumonia by Dr. Flint. From my own observations I am induced to believe this rule (if such it is) is subject to a great many exceptions, of which the above are cases. Indeed, I believe one of the great dangers of this disease is the failure of the lungs to sufficiently decarbonize and oxygenate the blood. Nature hangs out the sign of this want in the bronzed or mahogany hue of the complexion. Hence, attention to the respiratory function should particularly engage the attention of the medical practitioner throughout the whole course of the disease. Recognizing the liability to asphyxia, it follows that great care should be had in administering opium, especially where a large portion of the lung tissue is disabled by the disease; for opium, by lessening the frequency of the respirations, and the disease lessening the oxygenating surface, the remedy and disease combine to precipitate the patient into an alarming state of asphyxia. This I conceive to have been the result in the cases reported above, and my experience induces me to be more cautious in the use of this drug. Nevertheless, the treatment of pneumonia with large doses of opium has good authority to recommend it. But if this mode of treatment has either science or experience to recommend it, I have failed to make the discovery.

Cases Reported to the Chicago Medical Society. By Dr. CHARLES G. SMITH.

I. HÆMATURIA IN A NEW-BORN CHILD.

Mrs. N—— was delivered, after a somewhat protracted and severe labor, on the 20th ult., of a large and fine looking male child. The head came down well into the pelvis, but after three or four hours of very severe pains, did not advance, and I used the forceps, putting a speedy end to the labor, and without any apparent injury to the child. On the evening of the 23d, however, not quite forty-eight hours after birth, the nurse noticed that his urine had tinged his napkin a little red, and in the middle of the night, a passage of urine looked decidedly red and bloody. On the morning of the 24th early, I was called to see what had just passed from his urethra, and it seemed almost pure blood, and there was a large amount of it. These passages, perfectly bloody in appearance, continued all day on the 24th and 25th, at intervals of three or four hours, but on the morning of the 26th, the red color began to fade out, and by the evening of the same day, the urine had returned to the natural color, and the child seemed all right again. Sometimes there were small clots passed, and the color during the height of the attack was always of a florid red.

In hæmaturia, it is always difficult to locate the seat of the hæmorrhage, and particularly so, in cases of this sort, as it is almost impossible to get urine enough to subject it to any careful analysis. When the hemorrhage is from the ultimate structure of the kidney, we can generally find blood-casts of the uriniferous tubes; and when from the pelvis of the kidney, we can find scales of the renal epithelium, and the blood has not the marked redness which it has when the hemorrhage occurs farther down the passages of the urinary canal. I think it probable, from the very marked redness of the urine in this case, and the frequent occurrence of blood clots in what was passed, that the hemorrhage was mostly from the bladder itself.

The treatment was simply this: With a view of diverting the blood from the central organs to the surface of the body, I had

the child put into a bath of water as hot as it could well bear, and afterwards applied mustard poultices to the back, till the skin was well reddened. Internally, I gave ⅛ gr. of gallic acid in a little syrup and water, every three hours.

I have brought this case to the notice of the Society, because I had never seen one like it before, and because it seemed to me rather an anomalous one. I find nothing of the kind reported in the text-books or journals, nor can I hear of any in the experience of those of my medical colleagues to whom I have mentioned it, with one exception only; my friend, Dr. Ross, has seen one case of the kind, which ultimately recovered under a somewhat similar treatment.

II. DYSPNŒA; BRONCHIAL SPASM, SIMULATING CROUP.

I was called on the 5th ult. to see a little patient of mine, a boy, five years old, who was said to have a very severe and dangerous choking. I was detained some time, and when I arrived at the house, I found that he had been visited by a neighboring physician, who had pronounced the most unfavorable opinion of him, and had gone away without waiting to see me.

I found the patient in a most critical condition. He was black in the face, throwing his arms wildly about, and making the most frantic efforts to breathe, without being able to get any air into the lungs, and his death seemed very near. As well as I could get at the history and present condition of the case, it seemed certain that the child was suffering from croup, and unless air was admitted into the lungs in some way, he must die very soon. As I had no instrument with me, and desired some assistance and counsel in the matter, I sent for one of the surgeons in the neighborhood. But he could not be found, and my friend, Dr. Ross, was brought in his stead. While the messenger was gone, however, the trouble in breathing seemed a little less, and the color of the lips lost a little of its dusky hue, but they did not become quite red. I noticed, too, that when the boy spoke, which he did now for the first time, not having the power and opportunity before, in his struggle for breath, that his voice was perfectly clear. This threw a new

light on the case, and made apparent that there was a spasmodic element in it, and that the larynx itself was not physically and permanently obstructed. There was not, however, any general relaxation or breaking up of the spasm, and when Dr. Ross arrived, the boy seemed about as badly off as ever. It was the opinion of this gentleman, as it had been my own, on first seeing the patient, that suffocation was imminent, and that the child was dying from croup. This was also the opinion of Dr. Baxter, who saw the child soon after, and would have been the opinion of almost any medical man, I think, on first seeing the case. By watching carefully, however, and by the use of anti-spasmodic remedies, we had the pleasure of seeing the child return in a few hours to health again, from a situation which did not seem many minutes removed from death.

The treatment was sedative and anti-spasmodic. In the first place, he was put into a warm bath, then warm fomentations were applied to the chest and leeches to the throat. He took syrup of ipecac. and hive syrup in large doses, without the effect of producing vomiting. Afterwards, he took assafœtida by injection and by the mouth, and this seemed to produce a marked effect on the spasm. He continued to take it all night in alternation with small doses of bromide of potassium, and inhaled chloroform during the most severe periods of the paroxysm. He gradually improved during the night, and was quite well on the 6th, the next morning after his attack.

I have brought up this case to show an interesting point in diagnosis, and to show what possibility there is that a case of this sort might be tracheotomized and claimed as a successful case of that operation in a dangerous and otherwise fatal case of croup. This boy was a very hearty and robust subject, and would undoubtedly have recovered from any operation of the kind. He had had a slight bronchitis for about twenty-four hours previous to this attack, but so slight, that little attention was paid to it. The attack was very sudden and very violent. It may, perhaps, occur to some of you, that it resembled laryngismus stridulus more than anything else, but there was an absence of the crowing inspirations, convulsive movements and other symptoms of that disease. As I said before, it was, at

first sight, just like a case of croup, and it was the clearness of the voice which indicated that the trouble was not in the laryngeal structures, but rather in the bronchial tubes, extending, probably, to their minute ramifications. Acting on that supposition, the case was brought to a favorable termination, without resorting to the disagreeable and painful operation of tracheotomy.

PROCEEDINGS OF MEDICAL SOCIETIES.

THE CHICAGO MEDICAL SOCIETY.

At the last meeting of this society, Dr. Ross presented, as pathological specimens, two kidneys, smaller than normal, having an average weight of 3¾ ounces each. Their surface was smooth, a portion of which appeared dark and congested. On peeling off the capsule, a portion of the renal tissue adhered to it, the texture of the kidney being softened. The venous vascularity was marked and irregular, presenting a mottled appearance. On a section, the cortical substance was diminished, not averaging over 3-5ths of an inch in thickness. The pyramids were distinct with a plain limiting line.

The Dr. stated that these were fine specimens of the *mottled fatty kidney*. The patient from whom they had been taken, had died comatose, in the County Hospital, March 1st. He had been admitted into the Hospital three weeks before, in the second week of his illness, with the usual marks of typhus fever. The marked symptoms were those of low fever, dry skin, frequent pulse, dry tongue, sordes, rash, constipation and delirium. There had been no dropsy, and no convulsions; evidently the affection of the kidneys had come on as a complication. How long they had been the seat of disease he did not know, there having been no symptoms directing attention to the kidneys; the urinary secretion had not been tested, but as the patient, previous to his sickness, had been in robust health, it is almost certain they had become affected sometime during the course of the fever. The specimens were interesting as showing the amount of fatty change which had developed in so short a time. A case is

reported by Dr. Johnson in his work on the kidney, which came on during convalescence from typhus fever, which run its entire course in four weeks, to a fatal termination. The post mortem appearances of the kidneys are described as somewhat similar to the specimens presented by Dr. Ross, except the degeneration was probably much more extensive in the case of Dr. Johnson.

Dr. Ross also exhibited two kidneys taken from a phthisical patient brought to the Hospital in a moribund condition. The specimens were characterized by the absence of the line of demarkation between the cortical substance and the pyramids. The kidneys were slightly hypertrophied and softened, and presented evidences of fatty degeneration. In one of the specimens there was a large cyst filled with serum and urine.

A very interesting and quite rare case of malarial disease was reported by Dr. S. Wickersham. A boy, eight years of age, usually enjoying perfect health, had suffered for a week with daily attacks of torticollis. The attacks commenced about eleven o'clock A. M., and continued three or four hours, the head being drawn gradually to the left side, till it nearly reached the shoulder. The use of quinine for a few days entirely removed the affection. Two years ago, and again a year ago, the patient suffered every other day from similar attacks.

Dr. Charles G. Smith, reported a case of hæmaturia and one of dyspnœa, which will be found detailed in full on another page.

Dr. Holmes reported a ease of congenial opacity of the right cornea in an infant a month old. The family physician, Prof. Davis, and friends of the infant, observed the defect at birth, and stated that there had been no symptoms of inflammation, nor even of congestion of the eye. Nearly the whole cornea was densely opaque, there being a narrow rim at its upper and inner portion, which was quite translucent. The globe, as well as the cornea, was normal size, which is usually not the case where this deformity has been observed. The condition of the cornea seems to depend upon arrested development, and might possibly be considered as analogous to the opacity of the lens in congenital cataract. There is less probability that the opacity is the result of fœtal corneitis. Cases like the above are exceedingly rare.

Members of the society might attach whatever importance they chose to the following fact: In the third month of pregnancy, the mother had been much frightened by being informed that the right eye of one of her children had been "put out." Upon examining the child's eye, she found a piece of white tissue paper adhering to the cornea, over which the lids passed freely in winking. The children had been playing with a sheet of tissue paper attached to the end of a stick. By accident, the eye was struck by this paper, the corner of which coming in contact with the globe, was torn off and left adhering to the cornea. The mother stated that the eye, previous to the removal of the paper, appeared almost precisely like that of her infant.

An interesting discussion upon the subject of cholera followed the report of these cases. At some future time, we shall endeavor to present the readers of the JOURNAL with an abstract of what is now known regarding the nature and treatment of this disease. We would now merely commend two suggestions as worthy of consideration. Instead of chloroform to overcome spasm and increase the amount of blood in the brain, the attention of the society was called to the use of nitrous oxide gas. We might expect this agent not only to relieve spasm and vomiting, but also to supply oxygen freely to the blood. From the known effects of this gas in syncope, there are reasons for believing it may be of great benefit in nearly every stage of cholera.

A member described the following method of securing the action of mustard externally, in cases of cholera:

A dozen porous bricks, previously placed in boiling water till they have become thoroughly heated and saturated with moisture, should be covered with pulverized mustard of the best quality, and arranged on each side of the patient from head to foot. The patient should be then enveloped in thick blankets. The steam from the bricks carrying with it the active principle of the mustard, produces a most decided impression upon the whole surface of the skin. There is scarcely any method of applying mustard which will produce so rapid and thorough stimulation of the surface as this.

ROCK RIVER UNION MEDICAL SOCIETY.

The Rock River Union Medical Society held its semi-annual meeting at Dixon, Ill., Dec. 13th, 1865.

In absence of the President and Vice-President, Dr. O. Everett, of Dixon, was elected to the chair.

The minutes of the last meeting were read and approved.

Dr. Henry E. Paine and Dr. I. S. Williams, of Dixon, were admitted to membership.

Dr. Phillips, of Dixon, presented a specimen of granular disease of the kidney, with remarks.

Dr. Paine, of Dixon, presented a specimen of congenital imperforate anus, with the following history:

Mrs. W. gave birth to a male child, May 5, 1865, primipara. The child was born before the physician in attendance arrived, consequently, the body of the infant was not inspected, and the real condition of the child was unknown until May 6th. When seen, May 6th, the child presented a good development. The skin was jaundiced; he had been fretful for twenty-four hours previous; had urinated frequently; nursed very little. On examining the fundament, I found that no anus existed. The tissues were hard, and as solid at the point where the rectum should have terminated as at any portion of the gluteal region; therefore, I believed that the rectum terminated high up, and that, in order to operate successfully, a very deep incision and dissection would be necessary, and that the prognosis was bad, both as far as the operation and the ultimate result were concerned. While examining the case, and placing the subject in proper position for the performance of the operation, the child expelled its urine, which was tinged with meconium. The existence of a communication between the rectum and urinary organs was thus demonstrated, and though the character of the channel could not be comprehended, and the nature of the deformity was made more complex, yet I determined to make an effort to reach the intestine and relieve the parts. The operation was performed in the usual manner, and an incision carried one and a half inches into the pelvis; little blood was lost; the intestine was not reached, and after a careful and patient explo-

ration, further interference was desisted from. The child died two days after, and I made a post mortem examination. The abdomen was greatly enlarged and tympanitic. On opening the abdominal cavity, a large amount of serum was found, omentum congested, intestines distended with flatus. On removing the urinary organs, kidneys and bladder, together with the rectum, the following condition of organs was found: The bladder was empty, and both ureters were greatly distended with urine, and especially the left, which was as large as a pipe-stem, and filled with urine. The left kidney had undergone cystic degeneration, and was diminished in size to that of a body ¾ of an inch long by ⅜ inch wide. The cyst contained about six drachms of fluid. The right kidney was apparently healthy. On tracing the rectum downward, I found it terminated in a sinus, whose calibre was sufficient to allow a large straw to be introduced; it was 1¾ inches long, and communicated with the urethra just anterior to the sphincter muscle of the bladder.

Several interesting cases of resection were reported by Dr. Abbott and Dr. Paine, of Dixon, performed in the army.

Dr. Abbott reported a case of gall-stones, in an old man supposed to have cancer of the stomach, as there was regurgitation of food after eating; but a post mortem revealed the presence of eight or ten gall-stones in a cyst formed by an enlarged uriniferous tube. The duodenum was contracted from deposit of calcareous matter in the coats of the bowel.

On motion of Dr. Phillips, a committee was appointed to prepare a report to be published in the Dixon, Morrison and Sterling papers, preparatory to the anticipated appearance of cholera in our midst the coming season, suggestive of measures both hygienic and sanitary calculated to prevent the spread of the disease.

The Chair appointed as said committee: Drs. Phillips and Paine, of Dixon; Dr. Hagey, of Sterling; and Drs. Nowlan and Donaldson, of Morrison.

Drs. Abbott and Donaldson were appointed delegates to the State Medical Society.

Drs. Everett and Winn, delegates to the National Medical Society.

The Society voted that the Secretary forward these minutes to both medical journals of Chicago for publication.

Adjourned to meet at Morrison, the second Wednesday in June next. OLIVER EVERETT, *President.*

H. C. DONALDSON, *Secretary.*

SELECTED ARTICLES.

Last Illness of Valentine Mott, M. D.

The following account of the last illness of Valentine Mott, M. D., presented by Dr. Austin Flint to the N. Y. Academy of Medicine, will be read with interest:

MR. PRESIDENT,—In compliance with a request made at the Special Meeting of the Academy, held on the occasion of the death of the late Valentine Mott, I have the honor to submit a succinct report of his last illness. In making this report, I shall not presume to encroach upon the duty and privilege, belonging more appropriately to others, of rehearsing the surgical achievements which will render memorable in all time the name of Valentine Mott; or of pronouncing eulogiums for private virtues, which made him not less worthy of admiration as a man than as an illustrious member of our profession.

For several months preceding his death, the family and friends of Dr. Mott had observed a manifest decline in his physical vigor. He had pain (supposed to be neuralgic) in the back and limbs. The pain was at times exceedingly severe. Under a belief that the neuralgia was due to malaria, he took, for a time, arsenic. Cupping, with and without scarification, was also resorted to. I am unable to give further details with respect to these and other measures of treatment prior to his last illness. There was no evidence of failure as regards his mental faculties. A short time only before his last illness, I was associated with him in an important case, in which, from his intimate relations with the patient, he had consented to assume the responsibility of the attending physician. In the management of this case, the accuracy and completeness with which he carried in his mind the surgical events, and his attention to minute therapeutical details, impressed me strongly. The recent tragic events which

producod such a profound sensation throughout our country—I refer to the assassination of our late President—occurred a few days prior to his last illness. He was very deeply affected by this event; so much so, that the members of his family entertain a conviction that it contributed to his illness. His utterances in delirium frequently related to circumstances connected with this event. It is to be added, that he had repeatedly had attacks of intermitting fever.

On Saturday, April 22d, without any unusual exertion, exposure, or apparent exciting cause of any kind, he was seized with a severe chill at two o'clock P. M. The chill lasted an hour. It was accompanied with great prostration and intense lumbar pain. During its continuance he was seen by Dr. Vanderpoel. It was followed by intense febrile movement. I saw him at 5½ o'clock P. M. At this time the skin was extremely hot, the pulse frequent, the intense lumbar pain continued, and he was greatly prostrated. He was then lying upon a sofa in his office. It was necessary to carry him up stairs to his bed-chamber. This was done, and a quarter of a grain of the sulphate of morphine given. At 7 P. M. he began to perspire. At 10½ P. M. he had perspired freely, and the febrile movement had ceased. He appeared to have passed through an unusually severe paroxysm of intermitting fever. The lumbar pain did not continue, but he now, for the first time, complained of intense pain in the left leg, the pain being referred especially to the calf and ankle. A suppository containing half a grain of the morphine was given.

April 23. I was requested to see him at 6 A. M. He had passed a wretched night, from the continuance of intense pain in the left leg. A quarter of a grain of the sulphate of morphine was given by the mouth. Relief of the pain followed, and, during this day, he slept much of the time in short naps. Fearful of a repetition of the paroxysm of fever, two grains of the sulphate of quinine were given hourly, from 11 A. M. to 5 P. M., and, during the night, the same doses were continued at intervals of three hours. During this day he was free from febrile movement. At evening he seemed quite comfortable. He had taken during the day, beef tea, chicken soup, and wine whey, pretty freely. At this time the left leg presented no morbid appearance, but there was notable tenderness over the calf and ankle.

April 24. He had passed a comfortable night, but he suffered great pain in the left leg whenever it was moved. He appeared to doze most of the day, but complained of getting no sleep. Swelling and redness of the ankle and foot were observed on

this day, and hardness over the calf of the leg. The heat of the limb was considerably increased. At evening some vesication had occurred over both ankles. The pulse on this day became quite irregular and feeble. He had some deafness and tinnitus, attributable to the quinine. He was disinclined to take nourishment, and at times complained of nausea. No dejection had occurred since the attack. The urine was abundant. Auscultation of the heart revealed no murmur. The heart-sounds were feeble, especially the first sound. The apex-beat was not appreciable; but, judging of its situation by the maximum of intensity of the first sound, and determining the area of præcordial dullness by percussion, there appeared to be no enlargement of the heart. During this day the sulphate of quinine was continued in two-grain doses, repeated every two hours until evening. There was no recurrence of the paroxysms of fever. A little wine and brandy, with nourishment, were given on this day. He was reluctant to take either food or stimulants. In the afternoon an eighth of a grain of the sulphate of morphine was given. There was considerable tremulousness of the muscles of the jaw, and of the hands whenever he made any voluntary movements. Some incoherency was observed on this day. During this day, as on the previous day, he was seen repeatedly by Dr. Vanderpoel and myself, together and in alternation.

April 25. He had passed a pretty comfortable night, sleeping, at best, half of the night. Brandy and nourishment had been given sparingly, on account of his great repugnance to both. The pulse continued quite irregular. The tongue on this day became dry. The skin was warm. The left leg presented increase of swelling over the ankle and foot, and of hardness over the calf. The blisters over the ankles had enlarged, and presented a dark or purplish appearance. He had a free dejection, the first since the attack. There was great tremulousness of the hands with voluntary movements. Frequent tremulousness of the jaw continued. He still took food and stimulants very reluctantly. During this day there was considerable incoherency. The urine examined on this day showed a trace of albumen. Its reaction was acid; sp. gr. 1022: urates were deposited in abundance. With the microscope nothing was discovered in the sediment but amorphous urates.

Up to this date only Dr. Vanderpoel and myself were associated in attendance. Dr. Alexander B. Mott returned home from the army on this date. On examination of the affected lower limb, Dr. Mott ascertained diminished force of pulsation of the femoral artery, as compared with the pulsation of the corresponding artery of the opposite limb. In the afternoon there was

constant delirium, manifested by talking incoherently without cessation, imagining he was away from home, desiring to get up, the delirium being like that in typhus and typhoid fever. An eighth of a grain of the sulphate of morphine was given without any tranquilizing effect, and afterwards a quarter of a grain.

At 8½ P. M. he was seen in consultation by Dr. Alexander H. Stevens and Dr. Joseph M. Smith, and at 10 P. M. by Dr. Metcalfe. The restless, talkative delirium had ceased. He was somnolent, but easily aroused, recognizing persons who addressed him, and replying to questions, but relapsing into somnolency directly after being aroused. The skin was warm and moist; the pulse was frequent, feeble, and irregular. The rythm of the respirations was disturbed, breathing being suspended at intervals for several seconds. The left leg presented, in addition to the appearances already stated, a circumscribed dark patch on the dorsal aspect of the foot. The slightest movement of this limb now, as before, excited expressions of pain. The gentlemen who saw him in consultation with Dr. Vanderpoel and myself, advised only the continuance of alcoholic stimulants and nourishment.

April 26. During the greater part of the preceding night I was in attendance. He was in a semi-comatose state; the respirations and pulse were irregular; deglutition was unaffected, but food and stimulants were given with considerable difficulty on account of his repugnance to them. He remained during the day in this condition. The left leg presented increased vesication over the ankles, and enlargement of the dark patch on the dorsal aspect of the foot near the toes. With considerable difficulty food and stimulants were given at short intervals during the day. He became more and more lethargic; the pulse became progressively more feeble and irregular; the temperature of the skin diminished, and it was covered with clammy perspiration; deglutition became difficult, and death took place at 1 P. M.

The duration of the illness was four days and eight hours.

A review of this report, which, I should state, is essentially a transcript of memoranda noted daily during the illness, shows the following order of events:

First. A paroxysm, having all the characters of a paroxysm of intermittent fever, the cold stage lasting an hour, the hot stage lasting four hours, and the sweating stage followed by complete asphyxia. The paroxysm severe, and accompanied by great prostration.

Second. Severe pain in the left leg, following the febrile paroxysm, the pain accompanied by great tenderness. On the

third day, the occurrence of swelling, redness, increased heat and vesication. On the fourth day, increase of vesication, and the appearance of a dark circumscribed patch on the dorsal aspect of the foot. And, on the fifth day, increase of vesication and enlargement of the dark circumscribed patch. In conjunction with these local appearances, diminished force of pulsation in the femoral artery.

Third. Great prostration remaining after the febrile paroxysm. On the third day, incoherency; on the fourth day, typhoid delirium; and, on the fifth day, gradually developed coma, continuing and increasing until death—the mode of dying being chiefly by asthenia, notwithstanding the comatose condition and the disturbance of the rythm of respiration.

As regards the nature of the illness, or the pathological conditions involved, the following conclusions were drawn from the events of the clinical history: The primary affection was intermitting fever—a recurrence of the paroxysm being probably prevented by the use of quinine. The affection of the leg tended rapidly to gangrene, and there was reason to suspect the existence of embolism. The typhoid phenomena, occurring after the febrile paroxysm and during the development of the affection of the leg, would render the name *typho-malarial fever* appropriate; considering this name, in this instance, as denoting the existence of the typhoid state, not typhoid fever, with a malarial fever. The explanation of the fatal termination by exhaustion, after so short an illness, is to be found in the severity of the febrile paroxysm and the local affection, taken in connection with the advanced age of the patient, and the recent deterioration of the constitutional vigor.

These pathological views are believed to represent fairly the opinions of those who were associated in consultation; but it is proper to state that I have not been able to submit to them this report before presenting it to the Academy.—*N. Y. Medical Journal*, Aug., 1865.

SURGERY.

Endoscopy.—Certainly one of the most ingenious applications of the art of direct exploration and physical examination of the condition of the blind passages and internal organs of the human body, which modern professional zeal and enterprise has discovered, is that known by the name of Endoscopy. It boldly attempts and succeeds in accomplishing the direct, ocular examination of narrow canals and obscure cavities which until

now have never admitted during life the light of day, and which would seem to most persons, *a priori*, to be entirely beyond the study of the most inquisitive research applied in this way. But modern medical exploration has not yet reached its limit, it would seem, and by the method of which we are speaking it now reveals the secret lacunæ of the urethra, and even the interior of the bladder itself, to the most thorough and exact ocular scrutiny. As yet the practice of this method may be said to be in its infancy merely; it is in the hands of but few practitioners, but the results already attained are such as to warrant the hope that it will furnish the means of rational and successful treatment in some most serious complaints, which have hitherto been to a very great extent treated blindly and rudely.

Endoscopy is an art rather than a science, inasmuch as it consists merely in a method of exposing, by means of ingenious mechanism, to visual inspection and study, hidden regions hitherto unexplored in this way. To the late lamented Dr. John D. Fisher, of this city, belongs the credit of having first devised an apparatus for this purpose, identical in principle and similar in structure to that which is employed with so much success in France at the present time by Desormeaux, and by Dr. Cruise in Dublin. So long ago as 1824, Dr. Fisher contrived his instrument, but it does not seem in his hands to have attracted the attention it deserved, or to have accomplished the results of which it is plainly capable. At the present time, endoscopy is in active employment by both of the gentlemen who have taken it up since the decease of Dr. Fisher. Dr. Cruise's instrument is that which has produced the results with which we are best acquainted. and its structure is quite simple and easily understood.

The apparatus consists of a lantern for the purpose of illumination, and a system of tubes and instruments by which its light is made available. Dr. Cruise employs the flat flame of a petroleum lamp, placed with the edge towards the exploring tube. This lamp is enclosed in a wooden case, to avoid the inconvenience of the heat and the diffused light, with an opening opposite the flame on one side. In this opening a strong condensing lens is set, through which the light passes into the eye tube. This is a short tube, something like the tube of a microscope, but shorter, which is screwed to the side of the lantern opposite the opening. It is so jointed to the lantern, to which it is attached by its side, that it can be freely rotated, but in use it is generally kept in a horizontal position. The condensed light from the lantern, having entered the eye tube

through the lateral opening, falls on a perforated mirror set in this tube at an angle of 45°, by which the ray is reflected and thrown away from the eye of the observer along the axis of the tube. A small central opening in the mirror enables the eye of the observer placed behind to follow the light to the deepest recesses to which it may be directed. For examination of the urethra, a tube, the narrow portion of which is of the size of a large catheter, and six inches long, is fitted to the end of the eye-tube. Just before junction with the eye-tube it gradually expands, so as to give it a diameter large enough for the practical application of the instrument. When this tube is adjusted in the manner described, and introduced into the urethra, the effect is most marvelous. The whole canal can be examined most carefully, and the slightest local affection of whatever kind can be made out with perfect distinctness. In his interesting account of this instrument and its uses, Dr. Cruise gives colored plates showing the appearances of this canal, both diseased and healthy, even as far back as the prostatic portion. Having obtained a fair view of any morbid condition of the urethra, Dr. Cruise proceeds to apply the requisite treatment directly to the part affected. This is done by means of an opening on one side of the dilated portion of the urethral tube, by which he is able to introduce instruments for the purpose as far as may be necessary. He thus avoids the necessity of applying remedies in the usual way, by which the whole urethra is subjected to the stimulus of an injection, or exposed to the danger of laceration in a case of narrow and obstinate stricture. In chronic blennorrhagia, for instance, he applies his caustic directly to the granular surface of the membranous portion of the urethra with as much accuracy as the oculist does to the granulations of an old conjunctivitis. He is able also to watch the effect of his treatment from day to day, and is thus enabled to graduate the strength of his applications to the actual condition of the affected part, instead of trusting to the uncertain guide of the sensations or statements of the patient. Surely this is a great advance in practical surgery!

Another class of affections which the endoscope has furnished the means for successfully treating is stricture of the urethra. The most obstinate resistance on the part of these sometimes impervious obstructions of this canal have yielded to the insinuating power of a fine bougie passed under the eye of the observer. Dr. Cruise mentions several instances of this. In one, M. Civiale had tried for twenty-eight days to pass a sound through the stricture without success. At the second attempt, M. Desormeaux, by the aid of the endoscope, passed a fine

bougie through the constriction, and from that time the case went on favorably. In another case, of a patient 73 years old, repeated attempts by Dr. Cruise to pass a bougie failed, until he employed the endoscope, by which his efforts were finally crowned with success, and gradual dilatation was employed until the canal was enlarged to its full dimensions. By means of this instrument, also, internal urethrotomy is disarmed of most of its dangers, the knife being applied directly to the part requiring division under the direct observation of the operator. This operation has been very successful in these cases in the hands of M. Desormeaux, and it will undoubtedly often obviate the necessity of perineal section or of puncture of the bladder.

But the use of the endoscope is not limited to the canal which evacuates the bladder—it is made to explore that organ itself. By means of a catheter with a short curve, furnished with an opening on its convex surface, supplied with a glass window, the light from the lantern is thrown directly into the bladder. In this way Dr. Cruise has succeeded in perfectly examining the prostatic portion, the fundus and greater part of the posterior surface of this organ. In one instance of inflamed bladder, he made the condition of the lining membrane as visible to another observer as, to use his own words, "the conjunctiva of an inflamed eye." The *experimentum crucis* to which Dr. Cruise was subjected by his colleague, Dr. McDonnell, would seem to settle the question of the capabilities of the instrument for the purposes of accurate examination. This gentleman placed in the bladder of a dead body several articles, of the nature of which Dr. Cruise was not previously informed. By means of the endoscope he was enabled to make them out to be a Minie bullet, a brass screw with a milled head, and a mass of plaster of paris! Surely accuracy of diagnosis can go no farther.

At the present day, when specialties are occupying the attention of so many industrious members of the medical profession, the endoscope promises to be fruitful of valuable results. Its use must require a certain amount of patience and dexterity which can hardly be looked for from every general practitioner. With the laryngoscope it cannot fail to reward the labors of those who, by a natural gift or by a special cultivation of the capabilities of the instrument, will be enabled to substitute positive knowledge for conjecture, and direct application of remedies for blind treatment, in the management of a class of cases, many of which are among the most serious which the surgeon is called upon to treat.—*Boston Med. and Surg. Jour.* December, 1865.

EDITORIAL CORRESPONDENCE.

The political atmosphere by which one is surrounded at the Capitol is not favorable for the composition of a communication relating only to medical matters, and of interest to the medical profession. We have endeavored, however, to collect some facts at the headquarters of the medical department of the army, and from the last Report of the Surgeon General, which will, we trust, be of interest to our readers.

In no other department of the army has retrenchment been more rapid and judicious than in this. On January 1st, 1865, there were 201 general hospitals open, with a capacity of 136,000 beds. There now remain but 9 general hospitals, with only about 1000 patients in them, and 247 post hospitals, containing 3300 patients. The large amount of medical and hospital supplies which the reduction of the army has rendered no longer necessary, have been or are being sold, and in some cases the articles sell for more than their cost price to the Government. All of the river hospital boats have been turned over to the Quartermaster's Department. Of the 547 surgeons and assistant surgeons of volunteers, appointed since April, 1861, but 23 of the former and 19 of the latter are still in the service; and of the 5523 acting assistant-surgeons, only 246 are now in service. 264 hospital chaplains were appointed during the war, and of these only about 20 remain in commission.

During the war, 34 officers of the medical staff have been killed or died of wounds received in battle, 24 wounded, and 188 have died of accident or disease contracted in the service. 1 died in a rebel prison, and 6 of yellow fever. A complete record may increase this number. Surely no other profession or class of men have brought greater sacrifices to their country's altar than have the medical profession of this country, as is shown by the records of the medical department of the army and navy.

The number of sick and wounded white troops treated in general hospitals alone, from 1861 to July, 1865, was 1,057,423, and the mortality rate of these was 8 per cent. But we need

scarcely enter upon the statistics of any part of the medical department, for we have not space for even a very general reference to them, and the profession must be content to wait until the statistics can be completed, and, by the use of all available means, be made reliable.

The materials for the medical and surgical history of the late rebellion are, fortunately, commensurate with the magnitude of the struggle itself; and the zeal, energy and capacity with which the crude matter is being worked up, justifies the prediction, that it will prove as great a success as was the war for the salvation of the Union. No medical man who visits the divisions of the Surgeon General's office, in which this vast work is going on, can, with good reason, offer objections to the measures adopted by the Surgeon General to prevent intrenchments upon that which belongs to the Government, but which will be given to the profession so soon as it can be prepared with that accuracy and minuteness that is necessary to render such a history of value. It is impossible for any man or set of men to prepare a medical and surgical history of the late war so well as can be done under the auspices of the Government, even were the whole records of the medical department thrown open to all who might desire to examine them. The collection of facts, and the perfecting of the history of individual cases, and the preparation of statistics that shall be reliable, requires more labor and expense than any private individual could possibly afford; and it is not at all probable that a work, complete and reliable in all respects, could ever be made from any other source than that from which it is to come. We must be allowed to state, as a farther argument upon this point, that it is not from the records of the medical department alone during the war that data are to be gained, but the records of the Adjutant General's office are consulted in many cases to test the correctness of medical reports; the reports of pension surgeons and of artificial limb makers are consulted, and furnish valuable information as to the results of many of the most interesting cases, and from these reports the address of the men and the pension surgeons are obtained, and when the history of certain cases cannot be completed otherwise, letters of inquiry are addressed

to one or the other, or both, and in this manner all the desired information is obtained.

The Army Medical and Surgical Museum is the great object of interest to the medical man here. It furnishes another source of indisputable facts for the medical and surgical history, and is an institution of which the profession of the country should be proud. The surgical specimens now number over 5000, embracing every variety of wounds and injuries, and a history of each case is placed on record. The number of medical specimens is over 800, carefully preserved and ingeniously mounted, so as to be seen to the best possible advantage. A descriptive catalogue of specimens is in course of preparation, and will soon be issued; this will greatly aid visitors, as a concise and satisfactory history of each case from which the specimen was obtained, is given. The general classifications of surgical specimens are 25, with several subdivisions of each. The Museum is open to all, and has become an object of interest not only to the medical profession but to the public generally.

Besides the means already referred to as available for a medical history of the war, we should not fail to mention the interest added to the work by the microscope. Under the supervision of Brvt. Maj. J. J. Woodward, Asst. Surg. U. S. A., micro-photography has been brought to such a state of perfection as to be available for the illustration of micro-pathological anatomy. The microscopical series in the Army Medical Museum is already the largest and best micro-pathological collection in the United States.

In concluding this brief account of the materials and of the labor that is being done for the medical and surgical history of the war, we would admonish our readers to be patient, for at no distant day, if Congress does its duty in making appropriations, a work will be placed in the hands of the profession of which every worthy member may well be proud. Never before has such a mass of materials been furnished for such a history, and time must be allowed to digest them; and yet we venture the prediction, that there will not be nearly the time consumed in their preparation that has been consumed in producing all similar works in other countries.

The work is in good hands; it is open yet for the contributions of professional men and medical officers of the army, and due credit will be given to any one who, in any manner, aids in the great enterprise. R. M. L.

WASHINGTON, D. C., Feb. 28th, 1866.

EDITORIAL.

BOOK NOTICES.

The Physiology of Man: Designed to represent the existing state of Physiological Science as applied to the Functions of the Human Body. By AUSTIN FLINT, Jr., M. D., Professor of Physiology and Microscopy in the Bellevue Hospital Medical College, etc. New York: D. Appleton & Co.

The first volume of this great work is before us. To be completed in four volumes, issued yearly, it will constitute the most exhaustive treatise on Physiology that has appeared in this country. Designed to rank beyond the student's text-book, it discards much of the didactic prolixity which encumbers many of the standard works; and presuming upon the anatomical knowledge of his readers, the author aims to present a clear statement of all that is known in relation to the Physiology of Man. The present volume treats of Proximate Principles; The Blood; Circulation; and Respiration. Without descending to all the minutiæ of experimental detail, the author has brought forward the results of the vast experience and knowledge acquired by vivisections performed on the lower animals. The chapters on Circulation and on Respiration are especially rich in the fruits of such observations. For the readers of the leading European medical journals, the statements of our author will possess very little novelty; but to the profession generally, the arrangement and authoritative statement of discoveries and facts which have been only recently and perhaps timidly announced, will be interesting. As the principal value of every new work on Physiology consists chiefly in the addition thus made to the previously existing stock of knowledge, we shall

endeavor briefly to indicate some of the most important facts which are now for the first time placed in a tangible form before the professional public.

The chapter on Proximate Principles is more interesting than the corresponding chapter in the majority of physiological works. Under the head of *sugars*, the author discredits the theory that sugar and fat are oxidized in the lungs, or in the general system, for the purpose of keeping up the animal temperature. "The precise function of sugar and its mode of disappearance in the economy are not yet well understood. . . . We are only justified in saying that sugar is important in the process of development and nutrition, at all periods of life."

The question as to the possibility of the formation of fat in the system the author considers as definitely settled in the affirmative.

We are glad to see that the theory of Protein Compounds is rejected by Prof. Flint. He declares that "it is not a distinct chemical substance, for its composition is indefinite; nor a proximate principle, for it is produced artificially and by decomposition." The quantity of fibrin in the blood, "estimated by a process in which it is not exposed to dessication, is between 8 and 9 parts per 1000." He accepts Richardson's explanation of the cause of the fluidity of fibrin in the circulation, viz: "that the blood contains a small quantity of free ammonia, which has the power of maintaining the fibrin in its liquid condition." The whole subject is discussed at length in the chapter on the Blood, where are given all the arguments of different experimenters, *pro* and *con*. Prof. Flint, however, adopts the theory of Richardson as the only one fully substantiated by adequate observation. He denies the possibility that effused and coagulated fibrin is capable of organization. Effused fibrin may undergo a process of *fibrillization*, but this "is by no means an evidence of even commencing organization." Plastic lymph, which is capable of organization, is a substance quite different from fibrin.

The chapters on the blood are extremely interesting. The results of transfusion are related very fully, showing how wonderful is the vivifying power of this truly vital fluid. The fol-

lowing example is only one out of many: "Blood was passed from a living dog into the carotid of a dog just dead from peritonitis. The animal was so far revived as to sustain himself on his feet, wag his tail, etc., and *died a second time*, twelve and a half hours after. In this experiment insufflation was employed in addition to the transfusion." P. 99.

The author adopts Robin's explanation of the remarkable tendency of the corpuscles of fresh blood to arrange themselves in rows like rolls of coin, as observed with the microscope. "Shortly after removal from the vessels, there exudes from the corpuscles an adhesive substance which smears their surface and causes them to stick together. Of course the tendency is to adhere by their flat surfaces." P. 111.

The doctrine of the development of the red corpuscles from the colorless corpuscles meets no favor from Prof. Flint. "The red corpuscles appear before the leucocytes (white corpuscles) are formed. . . . It is most reasonable to consider that the red corpuscles are formed by a true *genesis* in the sanguineous blastema. . . . There is furthermore no sufficient evidence that any particular organ or organs have the function of producing the blood corpuscles. . . . Regarding them, as we certainly must, as organized bodies which are essential anatomical elements of the blood, it is difficult to imagine what reasons based on their function, should lead physiologists to seek so persistently after an organ for their destruction." (P. 120.) "The function of the leucocytes is not understood. The supposition that they break down and become nuclei for the development of red corpuscles, which at one time obtained, is a pure hypothesis, and has no basis in fact."

An entire chapter is devoted to a discussion of the causes of the coagulation of the blood. The experiments of Richardson and of his opponents are reviewed at great length, bringing the reader at last to the following conclusion: "When, as happens in the interior of the body, the blood coagulates under circumstances where the process will not admit of direct experimentation as far as the evolution of volatile substances is concerned, the best we can do is to apply, as far as possible, the facts which are proven with regard to coagulation out of the body,

when the phenomena can be minutely studied. Here, at least in the human subject and in animals, it seems demonstrated to be due to the evolution of ammonia." P. 166.

The chapters on the Circulation present a full discussion of the phenomena attending the movement of the blood. The experiments of all the leading observers, from the days of Hippocrates to our own epoch, are passed in review, affording much that will interest those who have not access to the original authors. The Professor differs from Dalton with regard to the shortening and elongation of the heart. Dr. Dalton teaches that during the systole of the organ the ventricles are elongated. That the apex of the heart is protruded during the ventricular systole is true, but Flint has shown that this is due to the synchronous distention of the great vessels leading from the heart, and that during the systole the ventricles are actually shortened. This fact was ascertained by suddenly cutting out the heart of a warm-blooded animal, and pinning its base with two needles to a thin board. With every ventricular contraction the point of the organ was visibly retracted.

The recent experiments of Marey with the "cardiographe" are fully detailed. Our limits will not permit anything more than this allusion to this most ingenious and perfect method of registering the movements of the heart, making the organ write its own story by a process not unlike that by which the telegraphic indicator impresses upon paper an impulse transmitted from a distant station.

An interesting series of experiments is given to illustrate the influence of the nervous system upon the movements of the heart. The author seems to doubt the importance attributed by some to the influence of the cardiac plexus. As for the influence of the pneumogastric nerves, "they undoubtedly perform the important function of regulating the force and frequency of its pulsations." (P. 235.) In respect of sudden death from blows upon the epigastrium, he inclines to the belief "that in such accidents the symptoms are due to direct injury of the heart. An additional argument in favor of this view is founded on our knowledge of the mode of operation of the sympathetic system. The effects of stimulation or irritation

of this system are not instantaneously manifested, as is the case in the cerebro-spinal system, but are developed slowly and gradually." P. 239.

With the exception of a recital of Marey's experiments upon the pulse, the chapter on the arterial circulation contains little that is new. For an account of Marey's sphygmograph we must refer our readers to the work itself; our limits will not permit us to transcribe the description of the delicate and complicated apparatus by which the pulse is made to trace on paper its actual force and form.

To the contractility of the smaller arterial branches our author ascribes the regulation of the capillary circulation. While refraining from a discussion of the phenomena of inflammation, he dissents from the opinion that this "modification of nutrition can be induced under our very eyes, simply by the application of irritants. With these views, microscopic researches on the *state of the blood and blood-vessels* in *inflammation* do not assume the importance which is attributed to them by many authors." P. 299.

Under the head of local peculiarities of the circulation, we notice that the Professor does not agree with those who consider any change in the quantity of blood within the cranial cavity "a physical impossibility." Among the organs provided with erectile tissue is now classed the uterus, since the experiments of Rouget, "who has lately shown by injections that the uterus is capable of erection like the penis." (P. 336.) "That the contractility of the lung tissue offers no impediment to the circulation is proved by the fact that an injection passes through the capillaries of the lungs as easily when they are collapsed as when they are inflated." P. 341.

While the section on Respiration contains much that is interesting, it presents little that is new. The subject of the diffusion of oxygen through the lungs and the removal of carbonic acid by respiration is not yet extricated from the difficulties that surround its comprehension. The concluding chapter on the relations of respiration to nutrition forms the most instructive part of this division of the work. Presenting a summary of the author's paper, originally published in the *Am. Journal*

of the Medical Sciences, Oct., 1861, it treats of the relations of oxygen and carbonic acid to nutrition; showing that oxygen, carried by the blood to the tissues, is by them consumed in some way that is not yet fully understood; while, in the words of Collard de Mortigny, "the carbonic acid expired is a product of assimilative decomposition, secreted in the capillaries and excreted by the lungs." From this view it naturally follows that the *besoin de respirer*, or *want of oxygen*, has its seat in the tissues rather than in the lungs or in the heart. This proposition is supported by the recital of a number of interesting experiments by vivisection, for which we must refer the reader to the pages of the work itself.

In conclusion, we cannot but congratulate the members of the medical profession upon the advancement of science which may be confidently expected as a result of the labors of such men as Prof. Flint. Though he may yet find it necessary to modify and to amend much that he has written, the evident zeal and candor with which his researches are conducted cannot fail to secure for his volumes a most cordial reception.

For sale by S. C. Griggs & Co., 41 Lake street.

Chloroform and its Administration. By ARTHUR ERNEST SANSOM, M. B., London. Philadelphia: Lindsay & Blakiston. 1866. Price, $2.25.

We cannot perhaps better give an idea of the merits of this book than to glean from it some of its teachings. It treats of the history of the discovery of anæsthetics, which shows that the boon has been sought by different persons through many years, and that the discovery has been long dawning upon the human mind, in accordance with what is perhaps the universal law, that great discoveries are not made suddenly, but are the consequences of generative antecedents, which render them possible, and from which they flow. As relates to the dangers of chloroform, statistics show that one death occurs in about 17,000 administrations. The author, however, thinks a considerable percentage of these die from fear or shock, and not from the effects of chloroform. In support of this view, he relates the

following incidents: "In the first case, in which Dr. Simpson proposed to try the effects of chloroform in a surgical operation, a boy was to be cut for stone. Just as the preliminaries were arranged, the boy died. Not a breath of chloroform had been given. If it had, the birth of the anæsthetic would have been its death. In another case, an apparatus for administering chloroform was applied to a patient about to be operated on. Suddenly he died. All around thought chloroform had brought about the result, but it was found that the valve was closed and not a whiff of chloroform had entered the lungs. Such accidents were not wanting before chloroform was thought of. It is told of Desault, that just as he was once about to perform lithotomy, he traced with his finger a line on the skin of the patient—the man shrieked and fell dead. A similar result occurred when Chopart was about to perform a simple operation. Another occurred in the practice of Mr. Stanley." In all about three hundred deaths have been reported, and of these 44 per cent died before the operation had commenced; 34 per cent during its performance, and 20 per cent shortly after its completion. There seems to be some doubt whether the use of chloroform has lessened the ratio of mortality from surgical operations. In amputations for severe injuries there is no improvement in late years, and the author says, that "in severe accidents necessitating an immediate operation, I believe we should hesitate before administering chloroform." Surgical operations for disease are, however, much more successful than they formerly were, but this is unquestionably in good part due to the improved medical (and especially hygienic) treatment that such cases now receive. The chapter on the chemistry of chloroform is full of interest and instruction, and especially is this true in what relates to its adulterations and impurities, which, however, is too lengthy to transcribe, while it is difficult to abridge. In its administration, it is recommended that an inhaler that will graduate the proportions of chloroform and air should always be used. We think the author exaggerates the danger of inhaling it from a napkin. We have reason to believe that anæsthetic agents have always been administered almost exclusively in this way in this city, and we have yet to

know of the first fatal result from their use; and though the experience of a single person is entitled to little weight in determining this question, even the negative testimony of a whole city during so long a period is worthy of consideration. The instrument is not so essential as that the person who administers the remedy should be possessed of knowledge and judgment. It has been more fatal to males than females—to those in middle life, than to the young or the aged—and more to the robust, than to the feeble and infirm. The diseases which increase the danger of its use are delirium tremens, fatty degeneration of the heart, uræmia and pyæmia, shock, hysteria and pulmonary disease, characterized by "general congestion and acute hyperæmia;" while, on the other hand, we are told that "patients suffering from consumption are, as a general rule, among the very best to submit to chloroform." The skin and tissues around the eye, rectum, genital organs and nails, longest retain their sensibility, and in the effort to overcome this, the use of the remedy is sometimes carried too far, which accounts for the relative frequency of fatal accidents from inhaling chloroform for trivial operations on these parts. The average amount inhaled in fatal cases in which it has been known, has been about one and one-half drachms—the smallest amount being but fifteen drops. To resuscitate from apparent death, artificial respiration, warmth and friction are relied on, while other stimulants are declared to be useless. The work concludes with chapters on anæsthetic mixtures, on the methods and practical rules for the administration of chloroform, and its uses in surgery, obstetrics and dentistry. It is a book that should be carefully read by every practitioner of medicine, surgery and dentistry. I.

For sale by S. C. Griggs & Co., 41 Lake street.

We have received from Dr. R. H. Ward, of Troy, N. Y., "The Transactions of the Medical Society of the State of New York for the Year 1865;" and from the author, Prof. J. C. Nott, of Mobile, Ala., a pamphlet, entitled "Contributions to Bone and Nerve Surgery."

The Principles and Practice of Medicine. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College. Philadelphia: Henry C. Lea.

This volume is for the most part made up from the lectures of Prof. Flint, and will be highly valued by the college graduates who have had the pleasure of listening to his instruction. The material is well classified, and is arranged very conveniently for reference. The work is chiefly valuable as a record of the experience and opinions of its author, and as such it is interesting. As contributing anything in advance of the teachings of other similar text-books, its value is very slight. Some of the topics are treated in a rather superficial manner, e. g., the chapter on Cholera, which is very unsatisfactory as compared with the illumination which might have been reflected upon the subject by proper reference to the physiological discoveries described in the work of the younger professor.

For sale by S. C. Griggs & Co., 41 Lake street.

We have received the following new medical journals: *The Savannah Journal of Medicine*, a monthly publication, edited by Drs. J. Harris, J. B. Read and J. G. Thomas. *The Richmond Medical Journal*, edited by Drs. E. S. Gaillard and W. S. McChesney, a monthly journal, published in Richmond, Va. *The Medical Reporter*, a semi-monthly record of Medicine and Surgery, edited by Drs. J. S. B. Alleyne and O. F. Potter, of St. Louis.

CHICAGO MEDICAL COLLEGE.

The exercises of the seventh annual commencement of this institution were held at the lecture-room of the college on the evening of March 1st.

The degree of Doctor of Medicine was conferred upon twenty-two candidates—the *ad eundem* degree upon four, and the honorary degree upon five.

After conferring the degrees, the president of the college, Prof. H. A. Johnson, addressed the class with a few very appropriate remarks.

The valedictory address was delivered by Prof. Byford. The subject of the address was, the "Philosophy of Trades and Professions," or the influences of the practice of medicine as compared with those of other occupations. It was received with great interest by the class, as well as by the rest of the audience. After the exercises, the class and their friends, with other members of the profession, were invited to a pleasant entertainment at the residence of Prof. Hollister.

Our readers could not fail to observe in our recent salutatory, the omission of the name of Prof. Allen, as one of the former editors of this Journal. In examining the earlier volumes of the Journal at the office of a friend, we carefully noted the names of those who had preceded us in the editorial chair. We cannot explain the manner in which the name of one who had during two years labored so faithfully for the Journal was omitted in our notice.

There has recently been on *exhibition* in this city a negro with an enormous enlargement of the scrotum, from a form of hypertrophy peculiar to one species of elephantiasis. The patient is twenty-two years of age, remarkably healthy in appearance, and of fine development. The disease of the scrotum commenced about eight years ago; it has not, apparently, progressed during the past twelve months. The tumor is said to be between 50 and 60 pounds, and to be 28 inches in length and 22 inches wide. Members of the professions interested in securing collections of photographs of medical and surgical specimens, can obtain a most excellent photograph of this patient and his tumor, by enclosing 30 cents to John Mountford, 272 South Clark street, Chicago.

Friends of Prof. Brainard will be interested to learn that letters have been received from him with intelligence that his health is much improved. On the 5th of February he was intending to leave Paris with his family to spend a couple of months in Italy. He states that his friends may expect him in Chicago as early as August or September next.

We have received the fee-bill of the Moultrie County Medical Society. The following abstract will give the general rate of charges: Prescription at office, with medicine, 75c. to $1.50. Visits in town, $1.50; to the country, $2 for first mile, and 75c. for each additional mile. For night visits, about a third more is added to the above. Obstetrical cases, $10; in the country, $10, with half mileage. Consultations, $8, with half mileage. Surgical operations, (with the exception of a few minor cases,) $10 to $500. The charge for tracheotomy is $100 to $300; for cataract, $100 to $500. In proportion to the expenses of living, we believe our friends in Moultrie co. are better paid for their professional services than most of our acquaintances in Chicago.

We are desirous of securing a complete series of the JOURNAL from its commencement in 1844 to 1858. It is stated that scarcely a single file of the JOURNAL is in existence. We have fortunately already collected several full and several incomplete volumes. We desire to procure the following numbers of the "Northwestern Medical and Surgical Journal:" for July, 1851; for May, July, November and December, 1854; for January, February and October, 1865; and for January, 1856. We shall be under obligations to any of our friends who can send us any of these numbers.

DEATH OF DR. I. P. LYNN.—At a meeting of the profession, held at the Council Chamber, Chicago, March 2d, 1866, on the occasion of the death of Dr. I. P. Lynn, Dr. R. C. Hamill was elected Chairman, and Dr. Thos. Bevan, Secretary.

On motion, Drs. Allen, Blake and Miller were appointed a committee to draft suitable resolutions in relation to the melancholy event.

Dr. E. Ingalls made a brief address, eulogistic of the estimable qualities of our departed confrere.

Dr. J. A. Allen, from the Committee on Resolutions, reported as follows:

Resolved, That the intelligence of the sudden and untimely death of our late friend and co-worker in the medical profession,

Isaiah P. Lynn, M. D., is received by this meeting with emotions of profound pain and sorrow.

Resolved, That the memory of our deceased brother will be cherished by us as of one who, personally, and by his amiable disposition and fine friendly feeling, endeared himself to all who knew him intimately; whilst, by his conscientious earnestness in acquainting himself with the principles of medical science, and thorough devotedness to the welfare of those who entrusted themselves to his care as patients, he commanded the confidence, the respect and esteem of both the profession and the public.

Resolved, That we tender to his bereaved family and friends, the assurances of our warmest sympathy in this their great affliction.

Resolved, That copies of these resolutions be presented to the relatives, the public press and medical journals of this city for publication.

On motion, the report was accepted and adopted unanimously.

On motion of Dr. Hay, it was resolved that the profession attend the funeral in a body.

Dr. J. A. Allen then occupied the meeting with appropriate remarks, highly creditable to the amiable character, kindness and faithfulness of the lamented dead. He also referred to the peculiarly sad circumstances of the immediate cause of death, giving an entirely satisfactory explanation of the accident which had resulted so unfavorably.

Dr. V. L. Hurlbut followed Dr. Allen in a similar vein.

Drs. Brooks and McVickar referred feelingly to the courtesy and worth of the deceased, Dr. M. giving some incidents of his personal relations to the Doctor, of a very pleasant character.

Drs. N. S. Davis, S. Wickersham and D. L. Miller, also addressed the meeting, expressing their cordial endorsement of the resolutions, and of the sentiments of sympathy and respect which had been expressed by other speakers.

On motion, the meeting adjourned.

THOS. BEVAN, M. D., *Sec'y.*

MARRIED.—On February 13th, 1866, at the residence of the bride's parents, Moline, Ill., by Rev. A. B. Hitchcock, assisted by Rev. A. H. Lackey, Dr. R. M. LACKEY, one of the Editors of this Journal, and Miss FRANK A. HITCHCOCK.